Cardiology Department

Having an Electrical Cardioversion

This leaflet explains the electrical cardioversion procedure and why it has been recommended for you. If there is anything that you feel the leaflet does not explain in enough detail or you have any further questions, then you will have the opportunity to discuss this with a specialist nurse when you have your telephone pre-assessment appointment.

The procedure will only be carried out when you are fully informed and happy to go ahead.

What is an electrical cardioversion?

An electrical cardioversion is a procedure used to treat your atrial fibrillation/atrial flutter (AF)

It involves placing two large square sticky patches on you, one on your chest and one on your back. The patches are attached to a machine called a defibrillator which delivers a small current of electricity to your heart. This small current of electricity stops the abnormal electrical activity which occurs in atrial fibrillation and flutter and allows the normal heart rhythm to re-appear.

Before having the procedure you are given medication to put you to sleep for a few minutes (general anaesthetic), the procedure takes about 5 minutes and you are woken up as soon as it is over.

Cardioversion succeeds in restoring normal rhythm in roughly 9 out of 10 patients but it doesn't prevent the AF from returning.

Why am I being offered electrical cardioversion and what are the benefits?

The main benefit of cardioversion is that you may feel better when the heart is in a normal rhythm. Atrial fibrillation or flutter often causes troublesome palpitation or breathlessness and restoring normal rhythm will get rid of those symptoms.

Cardioversion does not reduce the long-term risk of stroke or other such problems. Nor does it prevent the atrial fibrillation/atrial flutter from returning – this occurs in more than 50% of patients usually within a few weeks. The likelihood of AF returning is higher still if you have underlying heart disease or have had AF for a long time. In these circumstances, or if you have had a previous cardioversion, we might give you a drug (usually amiodarone) to reduce the likelihood of the AF returning.

Cardioversion does not reduce the long-term risk of stroke or other such problems.If your abnormal heart beat has been caused by something such as an operation or an infection there is more likelihood that you will stay in a normal rhythm after the procedure.

We will always consider the above points when considering electrical cardioversion as a treatment option for you. If you have heart disease, we would only tend to recommend electrical cardioversion if you are bothered by symptoms which tablets have not helped.

compassionate care

What are the alternatives?

The main alternative treatment for AF is rate control – this involves taking a tablet (usually digoxin, Diltiazem or a beta-blocker) to slow the heart rate down. Although the AF persists, controlling the heart rate in this way can often eliminate the symptoms completely. Restoring a normal rhythm doesn't reduce the risk of stroke – it's the anticoagulant drugs that do that. Addressing modifiable risk factors such as obesity and reducing alcohol intake can also help in reducing symptom burden.

What are the risks of cardioversion?

As with any procedure, there are risks involved in having a cardioversion. It is normal to worry about these risks however it is best to try and weigh up the risks and the benefits together.

Having a stroke caused by a blood clot is the most serious risk of electrical cardioversion, although this is rare. It is caused by a clot being dislodged from within the heart during the cardioversion or in the few weeks after the procedure. This risk is significantly reduced by taking an anticoagulant drug such as warfarin or one of the newer anticoagulants (Rivaroxaban, Dabigatran or Apixaban) to thin the blood.

It is essential that the anticoagulant drug is working properly for 4 weeks before the procedure and at least 4 weeks afterwards. For warfarin this means that your blood test (INR) should be within the range (2.5 to 4) for four consecutive weeks either side of the procedure.

For the newer anticoagulants it's absolutely **essential that you do not miss any doses during the 4 weeks before and after your cardioversion.** With these precautions the risk of a stroke happening due to the cardioversion is between 1 and 2 in 200 people.

There is a very small risk of the procedure itself causing a more serious life-threatening abnormal heart beat, although this is so rare that there are no available statistics. Occasionally the procedure results in a very slow heart beat - this usually resolves without treatment but might result in you being kept in hospital overnight.

It is possible to have a reaction to the medication we give you to put you to sleep. Your anaesthetist will assess your risk of this happening and discuss this with you. However, it is not always possible to predict an allergic reaction.

It is fairly common to experience some mild chest soreness or slight skin burns. This is not a serious side effect and will settle within a few days.

Preparation for the procedure

Once you have been listed for cardioversion our specialist nurses will be in touch with you to arrange a date for your pre assessment. If you are on warfarin they will arrange to monitor your blood test (INR) at the usual place on a weekly basis.

At pre assessment we will want to know what tablets you are taking, who will be picking you up on the day of procedure and who will be with you on the night of the procedure. We will be checking that you know what is planned and whether you have any questions about the procedure

During the pre-assessment we will confirm the date of when the cardioversion will take place. If time allows we will confirm these details by letter. Due to the nature of the procedure we sometimes offer you a place on the list at short notice. You will be given a time for your drive through covid-19 swab at Huddersfield Royal Infirmary or Calderdale Royal Hospital on the Sunday afternoon prior to your Wednesday morning procedure. You do not require any paperwork for this and need to stay in the car. Once your swab has been taken please go home and isolate until your procedure. We will only contact you if your swab result is positive for covid-19.

The day of the procedure

The cardioversions are done in the Day Procedure Unit Level 3 Calderdale Royal Hospital

Arrive 8.30 am

Fast from midnight the night before (take your tablets in the morning with a small sip of water).

On arrival you will have your pulse, blood pressure and ECG taken. Then be asked to put on a gown. You will be able to keep your clothes on below the waist. If you have a hairy chest it may be necessary to shave some of the hair off.

The doctor who will perform the cardioversion will see you and explain the procedure again. They will ask you to sign a consent form confirming that you are happy to go ahead and have not missed any doses of your anticoagulation in the last 4 weeks.

The anaesthetist will also come to see you and will want to know if you have had any previous problems with anaesthetic or other medical problems that might make an anaesthetic more risky.

A cannula (small plastic tube) will be placed in the back of your hand or your arm. A small blood sample will be taken from this to check the potassium levels in your blood are at a safe level to proceed. The nurse will take you to the anaesthetic room where the procedure will take place and the sticky pads will be put on you. You will be attached to a heart monitor so we can observe your heart rhythm during the procedure.

You will then be laid flat on a trolley bed and the anaesthetist will place an oxygen mask on your face. Medicine to put you to sleep will be injected into the cannula in your hand or arm. You will be asleep within seconds. While you are asleep your blood pressure, oxygen levels and pulse are checked on a regular basis.

Once asleep the doctor will press a button to deliver the current of electricity to your chest. The electric current travels through your chest to your heart. Sometimes this only needs to be done once. Sometimes it can take 3 or 4 attempts before your heart beat returns to normal. As previously mentioned, occasionally the procedure does not work at all.

After the procedure, when you wake up, you may still have an oxygen mask on your face.

You will be offered something to eat and drink.

Once you have recovered from your anaesthetic we can inform you if the procedure has worked or not and take an ECG to document this.

Once you are fully recovered and your observations are satisfactory, you will be ready for someone to collect you from the hospital. We will be able to give them up to an hours notice of when you will be ready. It is essential that you ask a friend or relative to collect you and accompany you home. You must not drive for 24 hours following your procedure. This is because you may still feel sleepy from your anaesthetic.

What do I need to bring on the day of the cardioversion?

Any medication you are taking. A book or magazine to read if you would like.

Please do not bring valuables e.g. jewellery.

How long will I be in hospital?

Providing the procedure is straight forward you will only need to stay in hospital for a few hours and will be ready to go home between 11.30 am and 12.30 pm.

When can I go back to work / start normal activities again?

You can go back to work and/or do normal activities 24 hours after your procedure.

Do I keep taking my tablets?

The doctor will discuss your medication with you prior to discharge, and will inform you of any changes they suggest. If you take warfarin you will continue this but you no longer require weekly INRs and the anticoagulation team will be informed by us.

Will I be seen again after the procedure?

You will receive a follow up appointment to see your doctor approximately 2-3 months after the procedure.

If you have any questions prior to your appointment please do not hesitate to contact one of the nurses on Telephone No: 01422 223543

If you have any comments about this leaflet or the service you have received you can contact :

Cardiac Nurses
Calderdale Royal Hospital
Telephone No: 01422 223543

www.cht.nhs.uk

If you would like this information in another format or language contact the above.

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

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اگر آپ کو یہ معلومات کسی اور فارمیٹ یا زبان میں درکار ہوں، تو
برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں.

"إذا احتجت الحصول على هذه المعلومة بشكل مغاير أو مترجمة إلى لغة مختلفة فيرجى منك الاتصال بالقسم المذكور أعلاه"